



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,674	05/18/2001	Robert L. Phillips	82001-0310	3354

7590 09/14/2006

Celine Jimenez Crowson
Hogan & Hartson L.L.P.
555 13th Street, N.W.
Washington, DC 20004

EXAMINER

NELSON, FREDA ANN

ART UNIT PAPER NUMBER

3639

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Allowability

Application No.

09/859,674

Examiner

Freda A. Nelson

Applicant(s)

PHILLIPS ET AL.

Art Unit

3639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37. CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment After Final filed on April 17, 2006.
2. ☒ The allowed claim(s) is/are 1, 2, 4, 6-16, 18-22, 25-37, 39 and 47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☒ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Response to Amendment

The amendments received on April 17, 2006 is acknowledged and entered. Claims 1, 18, and 47 have been amended. Claims 3, 5, 17, 23-24, 40-46, 48-50 and have been canceled. No claims have been added. Claims 1-2, 4, 6-16, 18-22, 25-37, 39 and 47 are currently pending.

The drawings received on 05/18/2001 are acceptable.

Claim rejection under 35 USC § 101 have been withdrawn in view of Precedential Decision by the Board of Patent Appeals and Interferences in case Ex parte Carl A. Lundgren (Appeal No. 2003-2088).

Claim rejections under 35 USC § 112 have been withdrawn due to the applicant's amendment.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Nelson (Reg. No. 47,818) on April 27, 2006.

The application has been amended as follows:

IN THE SPECIFICATION

On page ⁸~~7~~, line ⁶~~8~~, delete "P_{ref}" and insert "P_{REF}".

On page ⁸~~7~~, line ⁸~~10~~, delete "P_{ref}" and insert "P_{REF}".

On page ⁸~~7~~, line 22, delete the following equation:

$$F_{PS}(P) = 0.2 * \{1 - [\text{ArcTan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/\pi]\} \text{ (Eq. 1),}$$

and insert the following equation:

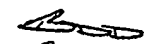
$$F_{PS}(P) = 0.2 * \{1 - [\text{ArcTan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/\pi]\} \text{ (Eq. 1).}$$

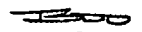
On page ¹⁷~~14~~, line ⁴~~25~~, delete the following equation:

$$X_{P,CS} = X_{P_{\text{ref}},CS} * F_{PS}(P) \quad (\text{Eq. 4})$$

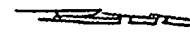
and insert the following equation:

$$X_{P,CS} = X_{P_{\text{ref}},CS} * F_{PS}(P) \quad (\text{Eq. 4})$$


6-21-06


6-21-06


6-21-06


6-21-06

On page 14, line 27, delete "X_{Pref,CS}" and insert "X_{P¹⁷_{ref},CS⁶}".

6-21-06

IN THE CLAIMS

1. (currently amended) A system for dynamically pricing a product, the system comprising:

means for collecting and storing data on past and current sales;

means for forecasting normalized future sales volume based upon the

past sales

data;

means for forecasting normalized future sales volume based upon the

past sales

data;

means for determining price sensitivity of consumers to changes in price

of the

product based upon past data, wherein the ~~mean~~ means for determining price

sensitivity uses a

logistic mathematical model that comprises a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{Arc-Tan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2 / \pi]\},$$

wherein

P_{REF} ~~P_{ref}~~ is a reference price P_{REF},

P_{final} is final price, and

α is empirically determined according to the past and the current sales data;

means for forecasting future sales volume at different prices by adjusting the normalized future sales volume forecast by the price sensitivity;

means for accepting user input to define for one or more strategic objectives',

means for determining an optimal price according to the strategic

objectives using the future sales volume forecast and costs for the product; and

means for evaluating the current sales at the optimal price and for using the evaluation to modify the optimal price according to the strategic objectives.

18. (currently amended) A method of dynamically pricing a product, the method comprising the steps of:

accepting and storing one or more strategic objectives from a seller;

collecting data on past sales;

forecasting normalized future sales volume based upon the past sales data;

determining price sensitivity of consumers to changes in price of the product based upon the past sales data, wherein the step of determining price sensitivity uses a logistic mathematical model that comprises a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{ArcTan}(\alpha * (P_{final} - P_{REF})) * 2/P_i \pi]\},$$

wherein

P_{REF} P_{ref} is a reference price P_{REF} ,

P_{final} is final price, and

α is empirically determined according to the past and the current

sales data;

forecasting future sales volume at different prices by adjusting the

normalized future sales volume forecast by the price sensitivity;

determining an optimal price according to the strategic objectives

using the future sales volume forecast and costs for the product;

selling the product at the optimal price;

collecting current sales data on sales of the product at the optimal price in real time;

repeating in real time said steps of forecasting normalized future sales

volume, determining price sensitivity of consumers, and forecasting future sales

volume at different prices using said past and current sales data; and

updating the optimal price according to the strategic objectives using the future sales volume forecast for past and current sales and costs for the product.

47. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for dynamically determining a price a product, said method steps comprising:

Art Unit: 3639

accepting and storing one or more strategic objectives;

collecting data on past sales;

forecasting normalized future sales volume based upon the past sales data;

determining price sensitivity of consumers to changes in price of the product based upon

the past sales data using a price sensitivity function, wherein the method step of determining price sensitivity uses a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{ArcTan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/P_{\text{IT}}]\},$$

wherein

P_{REF} , P_{ref} is a reference price P_{REF} ,

P_{final} is final price, and

α is empirically determined according to the past and the current sales data;

forecasting future sales volume at different prices by adjusting the normalized future sales volume forecast by the price sensitivity;

determining an optimal price according to the strategic objectives using the future sales volume forecast and costs for the product;

collecting current sales data on the sales of the product at the optimal price;

repeating said steps of forecasting normalized future sales volume, determining price sensitivity of consumers, and forecasting future sales volume at different prices using said past and current sales data; and

modifying said optimal price according to the strategic objectives using the future sales volume forecast for past and current sales and costs for the product.

Allowable Subject Matter

Claims 1-2, 4, 6-16, 18-22, 25-37, 39, and 47 are allowed.

1. The following is an examiner's statement of reasons for allowance:

As per independent claims 1, 18, and 47, specifically, Ouimet et al. (US Patent Number 6,094,641) do not disclose or fairly teach:

means for determining price sensitivity of consumers to changes in price of the product based upon past data, wherein the means for determining price sensitivity uses a logistic mathematical model that comprises a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{Arc-Tan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/\pi]\},$$

wherein

P_{REF} is a reference price,

P_{final} is final price, and

α is empirically determined according to the past and the current sales data

Art Unit: 3639

2. The NPL prior art of record, specifically, "A cointegration analysis of demand: implications for pricing", fails to disclose or fairly teach:

means for determining price sensitivity of consumers to changes in price of the product based upon past data, wherein the means for determining price sensitivity uses a logistic mathematical model that comprises a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{Arc-Tan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/\pi]\},$$

wherein

P_{REF} is a reference price,

P_{final} is final price, and

α is empirically determined according to the past and the current sales data

3. The foreign prior art of record, specifically, JP 2001331691, while disclosing a bidding system using Internet, market price prediction system, optimum bit quantity and price laying system, strategy laying system, and bidding system with risk management, fails to disclose or fairly teach:

means for determining price sensitivity of consumers to changes in price of the product based upon past data, wherein the means for determining price sensitivity uses a logistic mathematical model that comprises a price sensitivity function:

$$F_{PS}(P) = 0.2 * \{1 - [\text{Arc-Tan}(\alpha * (P_{\text{final}} - P_{\text{REF}})) * 2/\pi]\},$$

wherein

P_{REF} is a reference price,

P_{final} is final price, and

α is empirically determined according to the past and the current sales data

4. The remaining dependent claims are considered allowable, as they are dependent and based off of an allowable independent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freda A. Nelson whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3639

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FAN 07/12/2006

A handwritten signature in black ink, appearing to read "Freda Nelson". The signature is fluid and cursive, with a large loop at the end.